



Editorial

State policies on taxation of telecommunications services, argues Hosein Fallah, have failed to keep pace with communications convergence.

In New Jersey, there is an anomaly between the fiscal obligations of telecommunications companies, who pay business, sales and property taxes and those of cable television (CATV), satellite (DBS) and Internet service providers, (ISPs) who neither pay state corporate tax on their income, nor sales tax, (although in the case of CATV providers, they do pay franchise fees). Indeed, in the USA as a whole, apart from an agreed franchise fee, local government is prohibited from imposing any other taxes or fees on CATV providers. Nationally, the Internet Tax Freedom Act also exempts ISPs (and related Internet transactions), from all state and local government taxation, as a means of stimulating electronic commerce.

Hosein Fallah's paper shows that because of the inconsistent treatments, the tax burden among communications service providers is not shared equitably. The rate of contribution varies significantly, from no contribution in the case of Internet and DBS providers, to about 7% of revenues for incumbent telecom companies. This becomes more problematic as communications convergence blurs the distinctions among carriers, as each attempts to broaden its spectrum of services.

The current tax paradigm, argues Fallah, also distorts the true cost picture for services, as the prices charged to consumers can affect the competitive availability of such services. A number of states, such as Florida, Texas and Vermont, have begun to examine the problem and reform their telecommunications tax structure. However, one of the difficulties in reforming the current tax/fee system is balancing the promotion of advanced technologies with policies that sustain competition. Thus Fallah advocates the trusted precepts of *competitive neutrality*, *appropriate pricing for public goods*, *tax efficiency* and *simplicity* to improve taxation fairness and transparency. These will, he believes, balance the tax incidence on taxpayers for the use of communications services and that on communications companies for their share of the use of the state's resources.

Next, Emanuele Giovannetti and Cristiano Andrea Ristuccia enter the realm of Internet governance in their demanding contribution which is, frankly, not for the technological fainthearted.

They provide a useful contemporary analysis of debates surrounding regulation of international Internet connectivity examining, en passant, the evolving American and European positions on the phenomenon. One of their key concerns is the issue of Internet access pricing and its relationship to the peering and transit arrangements resident at the core of the Internet. They

insist that traffic and network asymmetries resident in the network are the result of hierarchical and topological architectures.

The paper sets out to provide ‘an economics, price-based perspective to complement existing metrics techniques used to assess market power and its potential abuse in the Internet backbone’. A central thrust of its approach is its analysis of the IP transit markets of the *Band-X* London and New York on-line trading floors.

The authors claim to advance the debate concerning market power and related regulatory issues in connection with Internet governance. Arguing the need for greater transparency in access policies (currently rendered difficult by imperfect information) they claim to have by-passed the difficulties of mapping the borders and hierarchies shaping the Internet backbone structure. Using available information on online IP transit prices and quality they claim to discern the emergence of a ‘less hierarchical and multi-headed backbone structure with separate US and European transit markets’. However, they also acknowledge that much remains to be done to fully understand the morphology of market power present at the infancy stage of online trading markets

Jeffrey James provides an admittedly tentative and exploratory set of themes in his contribution, the intention of which is less that of effecting a wholesale paradigm shift in the development/technological literature, than instead offering an admittedly intuitively based set of signposts for its future development. Thus James rejects the root and branch attempt to construct a ‘great leap forward’ from any Third World to First World technological solutions for Third World (developing) countries. Instead, envisaged in the paper is a ‘blending’ scenario welding together elements of Third and First World solutions in ways more sensitive to the needs of the ultimate (poor) consumer of information services. To support his contention that ‘blending’ technologies is an effective attack on the digital divide, James draws on examples from, inter alia, South America, Africa and Sri Lanka.

James’ important and suggestive finding is that the blending of such ‘low’ technologies as radio and telephone with the Internet (‘high’ technology) would effectuate a process conferring much wider benefits than simply (and perhaps crudely) substituting ‘low’ for ‘high’ technology in a draconian paradigm shift.

One, key, policy implication is that governments and aid agencies ‘could do well to switch from transferring new technologies from developed countries to promoting successful blends of new ICTs with existing technologies’

The potential benefits that telecommunication services bring to rural and remote communities are *prima facie* perceived to be beneficial. But their actual impact can be difficult to ascertain. Many variables may intervene between a technological investment and the outcome it is supposed to achieve. Establishing causality can, however, prove problematic. Ricardo Ramirez and Don Richardson attempt to assess the impacts of ICT investment in remote Canadian communities, where advanced telecommunication services have been introduced. The authors consider how ICT and related services can improve the livelihoods of aboriginal groups living there.

Although the low population density of rural communities means that there may only be a weak business case for infrastructure investment in terms of revenue alone, there may be collateral savings for social services agencies. At the community level, human and social benefits may also translate into savings for other community programmes such as those that encourage children to remain in school, improve self-esteem and/or reduce teenage behavioural excesses.

Among the factors complicating any purely quantitative assessment of how effectively investment is translated into savings is the actual cost of tracking key indicators: agencies are less inclined to spend the funds required on monitoring and evaluation activities. Nevertheless, in Canada, governmental incentive programmes are increasingly emphasizing the importance to project implementers and grant providers of such impact assessment criteria. However, the reliability of impact assessment is unproven, providing an opportunity for future research.

The approach described by Ramirez and Richardson highlights the importance of both quantitative and qualitative tools in such impact assessment. In particular, the authors highlight the importance of participatory planning and video testimonials. The authors consider that holistic approaches better capture the impacts at different levels and the multiple perspectives of the stakeholders involved.

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